

Amendments To The Claims:

Please amend the claims as shown.

1 – 15 (canceled)

16. (new) A method of combusting a dual gas/liquid fuel in a catalytic combustion system, comprising:

providing a catalytic burner in a combustion air flow with a dual gas or liquid fluid fuel supply positioned upstream of a fuel outlet of a primary burner with respect to the direction of the combustion air flow;

reacting the fuel in a catalytic pre-reaction by exposing the fuel and the air flow to the catalytic burner;

directing the pre-reacted fuel and air flow via a swirling component into a flow channel at an angle of 15° to 75° relative to the direction of combustion air flow; and

continuing to burn the pre-reacted fuel in a secondary reaction located downstream of the pre-reaction.

17. (new) The method as claimed in claim 16, wherein the pre-reacted fuel flow is directed into a combustion space where a vortex is created, and the secondary reaction occurs in the vortex.

18. (new) The method as claimed in claim 17, wherein the combined length of the catalytic burner, primary burner and combustion space are determined based on a dwell time of the pre-reacted fuel.

19. (new) The method as claimed in claim 18, wherein the catalytic burner, primary burner and combustion space are arranged next to each other in sequence along a path of the air flow.

20. (new) The method as claimed in claim 19, wherein the secondary reaction is a homogeneous non-catalytic reaction.

21. (new) The method as claimed in claim 20, wherein the fuel is completely burned in the secondary reaction.

22. (new) The method as claimed in claim 21, wherein the dual gas/liquid fuel is either a fuel gas or a fuel oil.

23. (new) The method as claimed in claim 22, wherein the fuel is a fuel gas during a first operating mode of the catalytic combustion system and is a fuel oil during a second operating mode catalytic combustion system.

24. (new) A burner for burning a dual gas/liquid fuel, comprising:  
a primary burner having a dual gas/liquid fuel inlet and a dual gas/liquid fuel outlet; and  
a catalytic burner located within a combustion air flow channel, having a catalytically effective element arranged to direct the pre-reacted fuel and air flow at an angle between 15° to 75° relative to the direction of flow to create a vortex in the flow channel, wherein a fuel outlet of the catalytic burner is positioned upstream of the fuel outlet of the primary burner with respect to the direction of flow of the fuel within the flow channel and the fuel is catalytically reacted via exposure to the catalytically effective element.

25. (new) The burner as claimed in claim 24, wherein the fuel is a fuel gas during a first operating mode of the catalytic burner and is a fuel oil during a second operating mode of the catalytic burner.

26. (new) The burner as claimed in claim 25, wherein the catalytic burner has a plurality of catalytically effective elements.

27. (new) The burner as claimed in claim 26, wherein the catalytically effective element is a honeycomb catalytic converter.

28. (new) The burner as claimed in claim 27, wherein the honeycomb catalytic converter basic component is selected from the group consisting of titanium dioxide, silicon oxide and zirconium oxide.

29. (new) The burner as claimed in claim 28, wherein the honeycomb catalytic converter catalytically active component is a noble metal or metal oxide which has an oxidizing effect on the fluid fuel.

30. (new) The burner as claimed in claim 29, wherein the vortex created by the catalytically effective elements is located downstream of the primary burner fuel outlet.

31. (new) The burner as claimed in claim 30, wherein the catalytically effective elements are arranged in a plane perpendicular to the direction of flow, and the fuel outlet of the catalytically effective elements discharges into the flow channel.

32. (new) The burner as claimed in claim 31, wherein the combined length of the catalytic burner, primary burner and flow channel are determined based on a dwell time of the pre-reacted fuel.

33. (new) The burner as claimed in claim 32, wherein the catalytic burner, primary burner and flow channel are arranged next to each other in sequence along a path of the air flow.

34. (new) A combustion chamber for a dual gas/liquid fuel gas turbine engine, comprising:

- a combustion chamber housing having an inward side and an outward side;
- a combustion chamber wall formed on the inward side of the combustion chamber;
- a plurality of heat resistant elements affixed to an interior of the combustion chamber wall that define a combustion air flow channel;
- a primary burner having a dual fuel outlet; and
- a catalytic burner located within the combustion air flow channel having a plurality of catalytically effective elements inclined at an angle between 15° and 75° to create a vortex in the

flow channel, wherein a fuel outlet of the catalytic burner is positioned upstream of the primary burner fuel outlet with respect to the direction of flow of a fuel within the flow channel and the fuel is catalytically pre-reacted by exposure to the catalytically effective element and subsequently a homogeneous non-catalytic secondary reaction is ignited downstream of the primary burner fuel outlet.

35. (new) The combustion chamber as claimed in claim 34, wherein the fuel is either a fuel gas or a fuel oil.